

file 158640

Monsanto  
COMPANY

Sauget, Illinois 62201  
TDDI 271-5635

August 16, 1968

On 8/16  
Monsanto

Ans

Mr. C. W. Klassen  
Technical Secretary  
State of Illinois Sanitary Water Board  
Springfield, Illinois 62706

Dear Mr. Klassen:

In reply to your letter of August 7, 1968, I have the following information which you need to set up a monitoring program for our industrial waste disposal site.

In general we deposit at this site those wastes which would add to the sludge load at the waste treatment plant or would dissolve in our wastewater and add to the phenol content, C.O.D. or color of the final effluent. Chemically, they fall into 6 main groups:

- 1. Phenols
- 2. Aromatic Nitro Compounds
- 3. Aromatic Amines and Nitro Amines (highly colored)
- 4. Chlorinated aromatic hydrocarbons
- 5. Aromatic and aliphatic Carboxylic acids
- 6. Condensation or reaction products of the above

A more detailed list of sources and quantities follows:

1. Still Residues - tars, condensation and decomposition products of doubtful composition but with some of the primary product remaining.

From the Distillation of:

Approx. Annual Amount

a.	Phenol	1,020 Cu. yds.
b.	Chlorophenol	720 Cu. yds.
c.	Nitro-Aniline and similar compounds	1,700 Cu. yds.
d.	Chlorobenzol (Tri-Tetrachlor)	130 Cu. yds.
e.	Chloro aniline	1,100 Cu. yds.
f.	Other aniline derivatives	200 Cu. yds.
g.	Nitro benzene derivatives	100 Cu. yds.
h.	Aromatic carboxylic acids (Maleic, Phthalic, etc.)	1,500 Cu. yds.
i.	Chlorophenol Ether	350 Cu. yds.

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2. By-Products -

- |  |                |
|--|----------------|
| a. Mixed isomers of nitrochlorobenzene           | 1,700 Cu. yds. |
| " " " Dichlorophenol                             | 3,000 Cu. yds. |
| b. Waste Maleic Anhydride                        | 730 Cu. yds.   |
| c. Waste Chlorobenzenes and Nitro-chlorobenzenes | 120 Cu. yds.   |

3. Contaminated Water and Acids -

- |  |                |
|--|----------------|
| a. Water with varying amounts of phenols (0-15%)   | 7,200 Cu. yds. |
| b. Waste Sulfuric acid with chlorophenol present   | 1,500 Cu. yds. |
| c. Caustic Soda Solution with chlorophenol present | 5,300 Cu. yds. |

4. Waste Solvents -

- |  |                |
|--|----------------|
| a. Waste Methanol contaminated with Mercaptans           | 600 Cu. yds.   |
| b. Waste Isopropanol - Water and chlorinated hydrocarbon | 5,500 Cu. yds. |
| c. Research Waste: Miscellaneous Solvents and Materials  | 1,019 Cu. yds. |
| d. Oily Materials from Oil Additive Production           | 101 Cu. yds.   |

5. Filter Sludge -

- |  |                |
|--|----------------|
| a. Attapulgus Earth -Keisulzguhr from Alkyl Benzene filtration | 600 Cu. yds.   |
| b. Lime-Mud from nitro-aniline production..                    | 1,000 Cu. yds. |

6. Unwanted Samples and Waste resulting from taking samples -

- |                                    |              |
|------------------------------------|--------------|
| a. Chlorophenols                   | 72 Cu. yds.  |
| b. Laboratory Samples (Everything) | 208 Cu. yds. |

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7. Miscellaneous Wastes -

These consist of spoiled material, floor sweepings, sludge from cleaning equipment and storage tanks etc which would cause problems if sewered. They are mostly reaction products of the above materials eg Esters of phenols or aliphatic alcohols with carboxylic acids such as phthalic, Maleic, or Benzoic acid, Anilides, Sulphonated phenols or other aromatics.

The relative quantities of these materials will necessarily vary according to sales of particular products and there will be additions to and deletions from this list. However, the general chemical classification will remain much the same.

Please let me know if you need any additional information.

Very truly yours,

J. R. McClain  
Plant Manager

Jo.